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Independent claims 1 and 15, respectively, are directed to a method of enhancing herbicidal activity of a glyphosate composition, and a composition, comprising: (a) glyphosate; (b) a cationic or protonatable amine first surfactant having a  $C_{8-24}$  hydrocarbyl group; and (c) a second surfactant of the formula shown in claim 1, including an N-acylsarcosinate, having a  $C_{7-23}$  group; at a total surfactant:glyphosate a.e. weight ratio range of 1:30 to 2:1, and a first surfactant:second surfactant weight ratio of 1:10 to 10:1.

Crudden describes compositions consisting essentially of glyphosate and an N-acylsarcosinate adjuvant. The sarcosinate is reported to provide effective efficacy at the same or lower concentrations as compared to Roundup or Roundup Ultra surfactant systems (col. 1, l. 58-67). Crudden provides a general disclosure of sarcosinate compatibility with a generic list of cationic, nonionic and amphoteric surfactants including quaternary ammonium compounds and lauryl dimethyl amine oxide (col. 2, line 63 - col. 3, line 4) but does not describe or suggest a ratio of surfactants or any benefits or advantages associated with the surfactant combination. In particular, Crudden is absolutely devoid of any teaching, motivation or suggestion regarding a first surfactant to sarcosinate surfactant ratio of 1:10 to 10:1 or any glyphosate efficacy enhancement associated with the claimed surfactant combination.

Magin et al. describe glyphosate compositions containing a  $C_{8-22}$  dimethyl amine oxide surfactant and a quaternary ammonium halide surfactant having 8-40 carbon atoms in total. This surfactant combination is said to enhance efficacy of glyphosate (col. 1, l. 66 - col. 2, l. 3) and it is preferred that additional surfactants are avoided (col. 11, l. 14-20). Sarcosinate surfactants are not taught or suggested. Magin also acknowledges that while some surfactants may enhance glyphosate efficacy, others may have little or no beneficial effect or an antagonistic effect even if similar in structure (col. 1, l. 25-45). Thus Magin et al. is absolutely devoid of any teaching or motivation regarding the claimed surfactant combination, much

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less even any suggestion of glyphosate efficacy enhancement associated with said combination.

The Applicants respectfully submit that the Office has failed to establish that claims 1-32 are *prima facie* obvious in view of the cited references. Specifically, there is no teaching, suggestion or motivation, either explicitly or implicitly in the Crudden and Magin et al. references or in the knowledge generally available to one of ordinary skill in the art, to arrive at the claimed invention. As stated in the M.P.E.P., "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."<sup>1</sup> It is respectfully submitted that Crudden and Magin et al. do not teach or suggest the claimed surfactant combination at the claimed ratio, hence there is no recognition, expressly or impliedly, in their teaching that some advantage or expected beneficial result would have been produced by their combination.

Without reference to the teaching of the instant invention, one would not have had a reasonable expectation of success in enhancing herbicidal activity by combining the claimed surfactants. Therefore, the combination of references, when viewed by one skilled in the art, would at best have been obvious to try, which without reasonable expectation of success is an improper standard for rejection under 35 U.S.C. §103(a). Even assuming, *arguendo*, that somehow one of skill in the art would have been motivated to combine Crudden and Magin et al., those references are absolutely devoid of any teaching or suggestion that the claimed combination would produce greater glyphosate efficacy than does the same total amount of either surfactant

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<sup>1</sup>Quoting MPEP §2143.01 at page 2100-124.

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individually.<sup>2</sup> Moreover, Magin acknowledges the unpredictable nature of surfactant effect on glyphosate efficacy.

The Office states without elaboration that the motivating force for combining the references is "to enhance the activity of glyphosate." A determination of obviousness requires evidence which establishes not merely what one skilled in the art might be led to attempt, but that she have a reasonable basis in the art for expecting to succeed. "The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art as it existed at that time."<sup>3</sup> Moreover, it is improper to use the claims as a frame from which individual naked parts of separate prior art references may be employed as a mosaic to recreate the claimed invention.<sup>4</sup> The cited art is silent, and does not even suggest the surfactant combination in the claimed ratio, much less the glyphosate enhancing effect of the claimed composition. The law requires not merely a rational hope, but a concrete basis to expect success. Applicants therefore respectfully submit that the cited art provides no teaching, motivation or suggestion for the claimed compositions.

For the foregoing reasons, it is respectfully submitted that the Office has failed to establish that claims 1 and 15, as well as the claims that depend therefrom, are *prima facie* obvious in view of Crudden and Magin et al. Therefore, Applicant submit that claims 1-32 meet the requirements under 35 U.S.C. §103(a) and are in condition for allowance.

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<sup>2</sup>See examples 1 and 2 at page 15, line 27 through page 17, line 9 of the specification; in particular page 16, lines 1-4 and page 17, lines 1-4.

<sup>3</sup>quoting *Interconnect Planning Corp. v. Feil* 227 USPQ 543 at 547 (Fed. Cir. 1985).

<sup>4</sup>*Id.* at 551.

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Respectfully submitted,



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